

1    ABSTRACT OF THE DISCLOSURE

A semiconductor device comprises at least a semiconductor layer including source and drain areas of a first conductive type and of a high impurity concentration and a channel area positioned between the source and drain areas, an insulation layer covering at least the channel area, and a gate electrode positioned close to the insulation layer. The channel area at least comprises a first channel area of a low resistance, positioned close to the insulation layer and having a second conductive type opposite to the first conductive type, and a second channel area of a high resistance, having the first conductive type and positioned adjacent to the first channel area.

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